AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the Application.

Listing of Claims:

1. (Currently Amended) A method of artifact rejection comprising:

(a) transmitting a stimulus;

(b) receiving a ~~signal~~ response to the stimulus;

(c)~~(b)~~ splitting the ~~signal~~ response into a noise component and a signal component;

(d)~~(c)~~ calculating a noise power from the noise component;

(e)~~(d)~~ based on the calculated noise power, storing the noise component in one of a plurality of noise buffers and the signal component in a corresponding one of a plurality of signal buffers;

(f)~~(e)~~ repeating steps (a) through (e)~~(d)~~;

(g)~~(f)~~ selecting a combination of the plurality of noise buffers having a lowest noise power; and

(h)~~(g)~~ calculating a signal ~~power~~ from a combination of signal buffers corresponding to the selected combination of noise buffers~~; and~~

~~(h) calculating a signal to noise ratio from the signal power and the lowest noise power~~.

2. (Original) The method of claim 1 further comprising counting the number of noise and signal components stored in each of the plurality of noise buffers and signal buffers, respectively.

3. (Currently Amended) The method of claim 1 further comprising:

calculating a signal to noise ratio from the calculated signal and the lowest noise power; and

comparing the calculated signal to noise ratio to a predetermined value.

4. (Original) The method of claim 3 further comprising performing a function if the calculated signal to noise ratio is greater than the predetermined value.

5. (Original) The method of claim 3 further comprising performing a function if the calculated signal to noise ratio is less than the predetermined value.

6. (Currently Amended) The method of claim 1 wherein ~~the signal comprises at least one response to at least one stimulus, and~~ each stimulus comprises a plurality of points.

7. (Original) The method of claim 6 wherein each stimulus comprises 1024 points.

8. (Currently Amended) The method of claim 1 wherein each of the plurality of noise and signal buffers ~~respectively~~ comprise eight buffers.

9. (Original) The method of claim 1 wherein the method is employed in one of a DPOAE test, a TEOAE test, a BAER test, an ultrasound operation, an MRI operation, a RADAR operation, a GPS operation, an EEG operation, an EKG operation, or a communications operation.

10. (Currently Amended) The method of claim 1 wherein splitting the ~~signal~~ response into a noise component and a signal component comprises taking the discrete Fourier transform of the ~~signal~~ response.

11. (Previously Presented) The method of claim 10 wherein seven different frequencies are employed.

12. (Canceled)

13. (Currently Amended) The method of claim 1 further comprising discarding the ~~signal~~ response if the noise power of the noise component does not fit within an acceptable range ~~of any~~ of the plurality of noise buffers.

14. (Currently Amended) A method of artifact rejection comprising:

(a) transmitting a stimulus;

(b) receiving a ~~signal~~ response to the stimulus;

(c)~~(b)~~ calculating a noise power from the ~~signal~~ response;

(d)~~(c)~~ based on the calculated noise power, storing the ~~signal~~ response in one of a plurality of buffers;

(e)~~(d)~~ repeating steps (a) through (d)~~(c)~~;

(f)~~(e)~~ selecting a combination of the plurality of buffers having a lowest noise power; and

(g)~~(f)~~ calculating a signal ~~power~~ based on the selected combination of buffers~~; and~~

~~(g) calculating a signal to noise ratio from the calculated signal power and the lowest noise power~~.

15. (Currently Amended) The method of claim 14 further comprising counting the number of ~~signals~~ responses stored in each of the plurality of buffers.

16. (Currently Amended) The method of claim 14 further comprising:

calculating a signal to noise ratio from the calculated signal and the lowest noise power; and

comparing the calculated signal to noise ratio to a predetermined value.

17. (Original) The method of claim 16 further comprising performing a function if the calculated signal to noise ratio is greater than the predetermined value.

18. (Original) The method of claim 16 further comprising performing a function if the calculated signal to noise ratio is less than the predetermined value.

19. (Currently Amended) The method of claim 14 further comprising discarding the ~~signal~~ response if its calculated noise power does not fall within one

of a plurality of acceptable noise power ranges corresponding to respective ones of the plurality of buffers.

20. (Canceled).

21. (Currently Amended) A method of artifact rejection comprising:

(a) transmitting a stimulus;

(b) receiving a ~~signal~~ response to the stimulus;

(c)~~(b)~~ calculating a noise power from the ~~signal~~ response;

(d)~~(c)~~ based on the calculated noise power, storing the ~~signal~~ response in one of a plurality of buffers;

(e)~~(d)~~ repeating steps (a) through (d)~~(c)~~; and

(f)~~(e)~~ selecting a combination of the plurality of buffers having a lowest noise power.

22. (Currently Amended) The method of claim 21 further comprising calculating a signal ~~power~~ based on the selected combination of buffers.

23. (Currently Amended) The method of claim 21 further comprising discarding the ~~signal~~ response if its calculated noise power does not fall within one of a plurality of acceptable noise power ranges corresponding to respective ones of the plurality of buffers.

24. (Currently Amended) The method of claim 21 further comprising analyzing the ~~signals~~ responses based on the selected combination of buffers.